

8/17/2018

Denali Water
Cindy Duenes
2001 Key Street
Colton, CA, 92324

Ref: Analytical Testing
Report Number: 18-220-0203
Project Description: VSD 2

Dear Cindy Duenes:

Waypoint Analytical Virginia, Inc. received sample(s) on 8/8/2018 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method. Sub-contracted testing is noted on the Sample Summary Table if applicable.

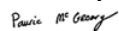
The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters (NELAP and non-NELAP) were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) and NELAC unless otherwise indicated.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,



Pauric McGroary
Agronomist

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

Arizona AZ0629
Florida E871087

New Jersey
North Carolina

VA011
257

Pennsylvania
South Carolina

68-03109
93007

Virginia 460014



Client: Denali Water
Project: VSD 2
Lab Report Number: 18-220-0203
Date: 8/15/2018

CASE NARRATIVE

Nitrate + Nitrite Nitrogen Method 4500NO3F-2011

Sample 62193

Analyte: NO₃+NO₂-N

QC Batch No: E65513

The MS/MSD recoveries are considered insignificant due to the level of analyte present in the parent sample relative to the spike level. RPD is based on the MS/MSD results and should be evaluated as laboratory duplicates.

Metals Analysis Method 6010D

Sample 62196 (VSD 2)

Analyte: Al

QC Batch No: L394768/L394529

The matrix spike (MS) and/or the matrix spike duplicate (MSD) was out of the acceptable recovery range due to the analyte concentration being greater than 25 times the method quantitation limit (MQL). A dilution test was performed and the recovery was within the method limits. No matrix interference is suspected.

Analyte: As

QC Batch No: L394948/L394529

The matrix spike (MS) and/or the matrix spike duplicate (MSD) was out of the acceptable recovery range. Due to the analyte concentration being less than 25 times the method quantitation limit (MQL) a post digestion spike was performed and the recovery was within the method limits. No matrix interference is suspected.

Analyte: Ca

QC Batch No: L394768/L394529

The matrix spike (MS) and/or the matrix spike duplicate (MSD) was out of the acceptable recovery range due to the analyte concentration being greater than 25 times the method quantitation limit (MQL). A dilution test was performed and the recovery was within the method limits. No matrix interference is suspected.

Analyte: Fe

QC Batch No: L394768/L394529

The matrix spike (MS) and/or the matrix spike duplicate (MSD) was out of the acceptable recovery range due to the analyte concentration being greater than 25 times the method quantitation limit (MQL). A dilution test was performed and the recovery was within the method limits. No matrix interference is suspected.

Analyte: K

QC Batch No: L394768/L394529

The matrix spike (MS) and/or the matrix spike duplicate (MSD) was out of the acceptable recovery range due to the analyte concentration being greater than 25 times the method quantitation limit (MQL). A dilution test was performed and the recovery was within the method limits. No matrix interference is suspected.

Analyte: P

QC Batch No: L394768/L394529

The matrix spike (MS) and/or the matrix spike duplicate (MSD) was out of the acceptable recovery range due to the analyte concentration being greater than 25 times the method quantitation limit (MQL). A dilution test was performed and the recovery was within the method limits. No matrix interference is suspected.



Analyte: Pb

QC Batch No: L394768/L394529

The matrix spike (MS) and/or the matrix spike duplicate (MSD) was out of the acceptable recovery range. Due to the analyte concentration being less than 25 times the method quantitation limit (MQL) a post digestion spike was performed and the recovery was within the method limits. No matrix interference is suspected.

Analyte: S

QC Batch No: L394768/L394529

The matrix spike (MS) and/or the matrix spike duplicate (MSD) was out of the acceptable recovery range due to the analyte concentration being greater than 25 times the method quantitation limit (MQL). A dilution test was performed and the recovery was within the method limits. No matrix interference is suspected.

QC Batch No: L394948/L394529

The matrix spike (MS) and/or the matrix spike duplicate (MSD) was out of the acceptable recovery range due to the analyte concentration being greater than 25 times the method quantitation limit (MQL). A dilution test was performed and the recovery was within the method limits. No matrix interference is suspected.

Solids Total Mercury Analysis - CVAA Method SW-7471B

Sample 62193

Analyte: Hg

QC Batch No: E65541

MS/MSD Recovery failed, PDS confirmed matrix interference



Sample Summary Table

Report Number: 18-220-0203

Client Project Description: VSD 2

Lab No	Client Sample ID	Matrix	Date Collected	Date Received	Method	Lab ID
62196	VSD 2	Solids	08/06/2018 12:00	08/08/2018		
62196	VSD 2	Solids	08/06/2018 12:00	08/08/2018	6010D	WTN

Report Number: 18-220-0203

Account Number: 11035



7621 Whitepine Road, Richmond, VA 23237
Main 804-743-9401 ° Fax 804-271-6446
www.waypointanalytical.com

Send To: Denali Water
Cindy Duenes
2001 Key Street
Colton , CA 92324

Project : VSD 2

Lab Number : 62196

Sample Id : VSD 2

REPORT OF ANALYSIS

Date Sampled: 8/6/2018 12:00:00

Date Received: 08/08/2018 00:00

Date Reported: 08/17/2018

PARAMETER	RESULT (%)	RESULT (mg/kg)	QUANTITATION LIMIT (mg/kg*)	ANALYST	ANALYSIS DATE/TIME	METHOD
Total Solids *	94.98	949800	100.0	R D	08/08/2018 15:45	SM-2540G
Moisture *	5.01		100.0	R D	08/08/2018 15:45	SM-2540G
Total Kjeldahl Nitrogen	4.01	40100	50.0	R D	08/09/2018 08:45	SM-4500-NH3C-TKN
Phosphorus	1.61	16100	50.0	BKN	08/13/2018 19:26	6010D
Potassium	0.24	2370	50.0	BKN	08/13/2018 19:26	6010D
Sulfur	1.69	16900	50.0	BKN	08/14/2018 21:58	6010D
Calcium	3.67	36700	50.0	BKN	08/13/2018 19:26	6010D
Magnesium	0.45	4530	50.0	BKN	08/13/2018 19:26	6010D
Sodium	0.09	853	250	BKN	08/13/2018 19:26	6010D
Iron		20300	50.0	BKN	08/13/2018 19:26	6010D
Aluminum		11400	50.0	BKN	08/13/2018 19:26	6010D
Manganese		228	5.00	BKN	08/13/2018 19:26	6010D
Copper		367	2.50	BKN	08/13/2018 19:26	6010D
Zinc		1370	5.00	BKN	08/13/2018 19:26	6010D
Ammonia Nitrogen	0.40	4010	50.0	R D	08/09/2018 08:45	SM-4500-NH3C
Organic N	3.61	36090	50.0		08/09/2018 08:45	CALCULATION
Nitrate+Nitrite-N		43.5	2.48	MMT	08/10/2018 11:04	4500NO3F-2011

All values are on a dry weight basis except as noted by asterisk. Detection limit on all N series is on a wet basis.

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A handwritten signature in black ink that reads "Pauric McGroary".

Pauric McGroary
Agronomist

Report Number: 18-220-0203

Account Number: 11035



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Main 804-743-9401 • Fax 804-271-6446
www.waypointanalytical.com

Send To: Denali Water
Cindy Duenes
2001 Key Street
Colton, CA 92324

Project : VSD 2

Lab Number : 62196

Sample Id : VSD 2

REPORT OF ANALYSIS

Date Sampled: 8/6/2018 12:00:00

Date Received: 08/08/2018 00:00

Date Reported: 08/17/2018

PARAMETER	RESULT (%)	RESULT (mg/kg)	QUANTITATION LIMIT (mg/kg*)	ANALYST	ANALYSIS DATE/TIME	METHOD
Cadmium		1.30	1.00	BKN	08/13/2018 19:26	6010D
Chromium		139	2.50	BKN	08/13/2018 19:26	6010D
Nickel		22.7	2.50	BKN	08/13/2018 19:26	6010D
Lead		24.2	3.00	BKN	08/13/2018 19:26	6010D
Arsenic		6.64	5.00	BKN	08/14/2018 21:58	6010D
Mercury		0.995	0.400	MMT	08/13/2018 14:30	SW-7471B
Selenium		10.7	5.00	BKN	08/14/2018 21:58	6010D
Molybdenum		25.0	2.50	BKN	08/13/2018 19:26	6010D

Comments:

AZ CERT#0629

AMMONIA-N, SULFUR NOT FOR COMPLIANCE PURPOSES

All values are on a dry weight basis except as noted by asterisk. Detection limit on all N series is on a wet basis.

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A handwritten signature in black ink that reads "Pauric McGroary".

Pauric McGroary
Agronomist

Cooler Receipt Form

Customer Number: **11035**
Customer Name: **Denali Water**
Report Number: **18-220-0203**

Shipping Method

☐ Fed Ex ☐ US Postal ☐ Lab ☐ Other :
☒ UPS ☐ Client ☐ Courier Thermometer ID:

Shipping container/cooler uncompromised?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Number of coolers received	<input type="text" value="1"/>		
Custody seals intact on shipping container/cooler?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Custody seals intact on sample bottles?	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> Not Required
Chain of Custody (COC) present?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC agrees with sample label(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
COC properly completed	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Samples in proper containers?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sample containers intact?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Sufficient sample volume for indicated test(s)?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
All samples received within holding time?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler temperature in compliance?	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Water - Sample containers properly preserved	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> N/A
Water - VOA vials free of headspace	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Trip Blanks received with VOAs	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
Soil VOA method 5035 – compliance criteria met	<input type="radio"/> Yes	<input type="radio"/> No	<input checked="" type="radio"/> N/A
<input type="checkbox"/> High concentration container (48 hr)	<input type="checkbox"/> Low concentration EnCore samplers (48 hr)		
<input type="checkbox"/> High concentration pre-weighed (methanol -14 d)	<input type="checkbox"/> Low conc pre-weighed vials (Sod Bis -14 d)		
Special precautions or instructions included?	<input type="radio"/> Yes	<input checked="" type="radio"/> No	

Comments:

Signature:

Date & Time:



SAMPLE TR

7621 Whitepine Road J

Denali Water
VSD 218-220-0203
11035
08-08-2018
12:45:47

STUDY

office@al-labs-eastern.com

Account #
11035

Submitted By	Copy To
Denali Water Solutions	
3031 Franklin Ave STE A	chrisamarks@comcast.net
Riverside, CA 92507	irsaint@gmail.com

Project		Sample Information																
Sample ID	Lab Number (Lab Use Only)	Collection Information			Container Information			Please Check Desired Tests										
		Type	Date	Time	Number of Bottles	Type	Volume	SL1	SL2	503 Metals	Nitrogen Series	pH	CCE	Ag	Cl	Volatile Solids	Test Package	
VSD 1		X_ Grab _ Composite	8/6/2018	1200	1	Glass X_ Plastic	oz pint X qt										SLSOSO	
VSD 2	62196	X_ Grab _ Composite	8/6/2018	1200	1	Glass X_ Plastic	oz pint X qt										SLSOSO	
VSD 3		X_ Grab _ Composite	8/6/2018	1200	1	Glass X_ Plastic	oz pint X qt										SLSOSO	
VSD 4		X_ Grab _ Composite	8/6/2018	1200	1	Glass X_ Plastic	oz pint X qt										SLSOSO	

Relinquished By: (Signature)	Date	Time	Received By: (Signature)	Date	Time
Joel Santos (signature)	8/6/2018	1700			

Test Package Details		Special Instructions or Remarks
SL1: Total Solids (Moisture) Total Kjeldahl Nitrogen, Phosphorus and Potassium SL2: Basic Test SL1 plus Sulfur, Calcium, Magnesium, Sodium, Iron, Aluminum, Manganese, Copper And Zinc 503 Metals: Arsenic, Cadmium, Chromium, Mercury, Molybdenum, Lead, Nickel, Selenium. (Copper & Zinc included in SL2) Nitrogen Series: Total Kjeldahl, Ammonium, Nitrate & Organic Nitrogen. CCE: Calcium Carbonate Equivalent or Total neutralization Value (For Lime Treated Sludge)		